Abstract of the Disclosure

Pharmaceutical compositions and methods for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system (CNS) or peripheral nervous system (PNS), in the treatment of an injury, disorder or disease of the CNS or PNS, comprise antigen-presenting cells, preferably dendritic cells, that have been pulsed with an agent selected from the group consisting of: (a) a nervous system (NS)-specific antigen or an analog thereof; (b) a peptide derived from an NS-specific antigen or from an analog thereof, or an analog or derivative of said peptide; (c) a copolymer selected from the group consisting of Copolymer 1, a Copolymer 1-related peptide or polypeptide, and poly-Glu<50> Tyr<50>; and (d) a non-self antigen.